

```
Chain nodes :
    17   18   26   27   29   30   31

ring nodes :
    1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   19   20   21   22   23

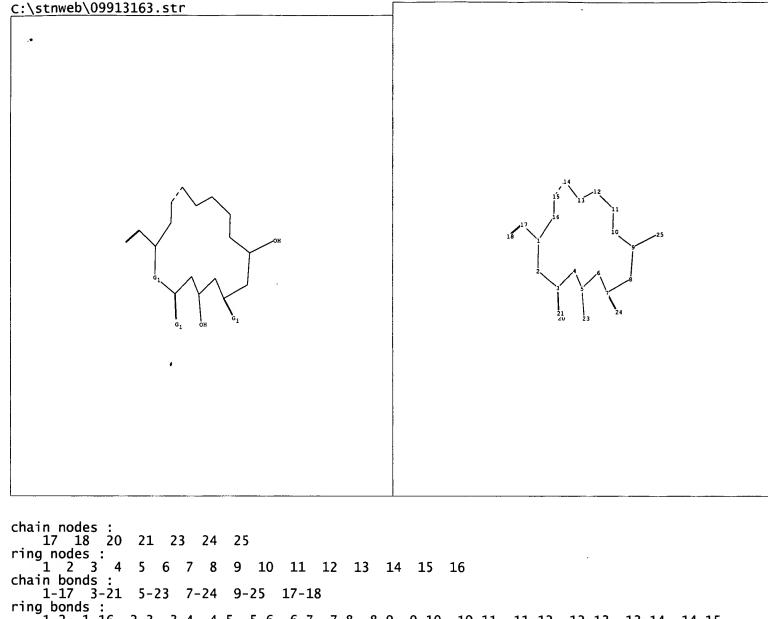
chain bonds :
    1-17   3-27   5-29   7-30   9-31   17-18

ring bonds :
    1-2   1-16   2-3   3-4   4-5   5-6   6-7   7-8   8-9   9-10   10-11   11-12   12-13   13-14   14-15
    15-16   19-20   19-23   20-21   21-22   22-23

exact/norm bonds :
    1-2   1-16   1-17   2-3   3-4   3-27   4-5   5-6   5-29   6-7   7-8   7-30   8-9   9-10   9-31   10-11
    11-12   12-13   13-14   14-15   15-16   17-18   19-20   19-23   20-21   21-22   22-23

isolated ring systems :
    containing 1 : 19 :
```

```
Match level:
1:Atom 2:CLASS 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS 26:CLASS 27:CLASS 29:CLASS 30:CLASS 31:CLASS
```



chain bonds :
 1-17 3-21 5-23 7-24 9-25 17-18
ring bonds :
 1-2 1-16 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15 15-16
exact/norm bonds :
 1-2 1-16 1-17 2-3 3-4 3-21 4-5 5-6 5-23 6-7 7-8 7-24 8-9 9-10 9-25 10-11 11-12 12-13 13-14 14-15 15-16 17-18
isolated ring systems :
 containing 1 :

G1:0,s

Match level :
 1:Atom 2:CLASS 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 20:CLASS 21:CLASS 23:CLASS 24:CLASS 25:CLASS

Welcome to STN International Web Page URLs for STN Seminar Schedule - N. America NEWS Apr 08 "Ask CAS" for self-help around the clock BEILSTEIN: Reload and Implementation of a New Subject Area NEWS Apr 09 Apr 09 NEWS ZDB will be removed from STN Apr 19 NEWS US Patent Applications available in IFICDB, IFIPAT, and IFIUDB NEWS Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS NEWS Apr 22 BIOSIS Gene Names now available in TOXCENTER NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available NEWS Jun 03 New e-mail delivery for search results now available NEWS 10 Jun 10 MEDLINE Reload NEWS 11 Jun 10 PCTFULL has been reloaded NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment NEWS 13 Jul 22 USAN to be reloaded July 28, 2002; saved answer sets no longer valid NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY NETFIRST to be removed from STNNEWS 15 Jul 30 CANCERLIT reload NEWS 16 Aug 08 NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN NEWS 18 Aug 08 NTIS has been reloaded and enhanced NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced NEWS 23 Sep 03 JAPIO has been reloaded and enhanced February 1 CURRENT WINDOWS VERSION IS V6.0d, NEWS EXPRESS CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002 NEWS HOURS STN Operating Hours Plus Help Desk Availability NEWS INTER General Internet Information NEWS LOGIN Welcome Banner and News Items NEWS PHONE Direct Dial and Telecommunication Network Access to STN NEWS WWW

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

CAS World Wide Web Site (general information)

\* \* \* \* \* \* \* \* STN Columbus \* \* \* \*

FILE 'HOME' ENTERED AT 22:58:00 ON 08 SEP 2002

=> file reg

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 22:58:14 ON 08 SEP 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 6 SEP 2002 HIGHEST RN 447682-31-7 6 SEP 2002 HIGHEST RN 447682-31-7 DICTIONARY FILE UPDATES:

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting  ${\tt SmartSELECT}$  searches.

Crossover limits have been increased. See <u>HELP\_CROSSOVER</u> for details.

Calculated physical property data is now available. See <a href="HELP PROPERTIES">HELP PROPERTIES</a> for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: <a href="http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf">http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf</a>

=> L1

STRUCTURE UPLOADED

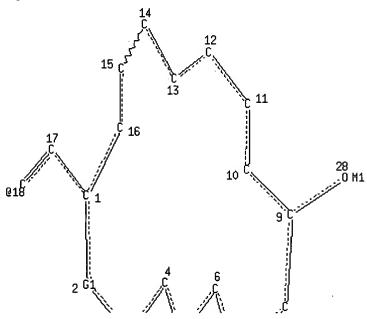
=> d 11

L1 HAS NO ANSWERS

L1 STR

0 29 S 30

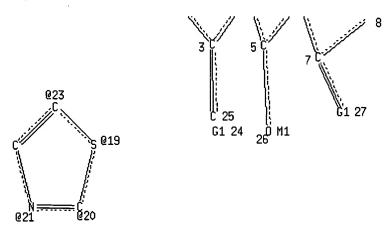
Page 1-A



Page 1-B

**@22** 

Page 2-A



```
Page 2-B
VAR G1=29/30
VPA 18-19/20/21/22/23 S
NODE ATTRIBUTES:
HCOUNT
        IS M1
                   AT
                       26
HCOUNT
        IS M1
                   ΑT
                       28
NSPEC
        IS R
                   ΑT
                        1
NSPEC
        IS R
                   ΑT
NSPEC
        IS R
                   AT
                        3
NSPEC
        IS R
                   AT
NSPEC
        IS R
                   AΤ
NSPEC
        IS R
                   AΤ
                        6
                        7
NSPEC
        IS R
                   AΤ
NSPEC
        IS R
                   AΤ
                        8
        IS R
                        9
NSPEC
                   AT
        IS R
NSPEC
                   AΤ
                       10
NSPEC
        IS R
                   AT
                       11
NSPEC
        IS R
                   AT
                       12
        IS R
NSPEC
                   AT
                       13
NSPEC
        IS R
                   AT
                       14
NSPEC
        IS R
                   AT
                      15
NSPEC
        IS R
                   AΤ
                       16
NSPEC
        IS C
                   AT
                       17
NSPEC
        IS C
                  AT
                       18
NSPEC
        IS R
                  AT
                       19
NSPEC
        IS R
                  ΑT
                       20
NSPEC
        IS R
                  ΑT
                       21
NSPEC
        IS R
                  AT
                       22
        IS R
NSPEC
                  ΑT
                       23
NSPEC
        IS C
                  ΑT
                       24
NSPEC
        IS C
                  AT
                       25
NSPEC
        IS C
                  AT
                       26
NSPEC
        IS C
                  AT
                       27
NSPEC
        IS C
                   AT
                       28
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT
                      17 18 25 26 28 29 30
DEFAULT ECLEVEL IS LIMITED
GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS
STEREO ATTRIBUTES: NONE
=> s 11
SAMPLE SEARCH INITIATED 23:04:05 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -
                                        7 TO ITERATE
100.0% PROCESSED
                        7 ITERATIONS
                                                                   0 ANSWERS
SEARCH TIME: 00.00.01
FULL FILE PROJECTIONS:
                         ONLINE
                                  **COMPLETE**
                         BATCH
                                  **COMPLETE**
PROJECTED ITERATIONS:
                                   7 TO
                                             298
PROJECTED ANSWERS:
                                   0 TO
                                               0
L2
              0 SEA SSS SAM L1
=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 139.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) /N or END:y
FULL SEARCH INITIATED 23:04:20 FILE 'REGISTRY'
```

134 TO ITERATE

FULL SCREEN SEARCH COMPLETED -

0 ANSWERS

```
100.0% PROCESSED
                        134 ITERATIONS
SEARCH TIME: 00.00.01
L3
                O SEA SSS FUL L1
=>
L4
         STRUCTURE UPLOADED
=> d 14
L4 HAS NO ANSWERS
L4
                  STR
 0 24 S 25
Page 1-A
              15
                        13
                                     11
                  16
                                 10
Page 1-B
                      Ĝ1 22
      20
          21<sup>0</sup> M1
    G1 19
Page 2-B
VAR G1=24/25
NODE ATTRIBUTES:
HCOUNT
                         21
         IS M1
                    ΑT
HCOUNT
         IS M1
                         23
                    ΑT
NSPEC
         IS R
                    AT
                          1
NSPEC
                          2
         IS R
                    ΑT
NSPEC
                          3
         IS R
                    AT
         IS R
NSPEC
                    ΑT
                          4
NSPEC
         IS R
                          5
                    ΑT
```

NSPEC

NSPEC

NSPEC

NSPEC

NSPEC

NSPEC

NSPEC

IS R

AT

ΑT

ΑT

AT

AT

ΑT

ΑT

6

7

8

9

10

11

12

```
NSPEC
        IS R
                   AT
                      13
NSPEC
        IS R
                   ΑT
                       14
NSPEC
        IS R
                   AT
                       15
NSPEC
        IS R
                       16
                   ΑT
NSPEC
        IS C
                   ΑT
                       17
NSPEC
        IS C
                   AΤ
                       18
                       19
NSPEC
        IS C
                   ΑT
NSPEC
        IS C
                   AΤ
                      20
NSPEC
        IS C
                   ΑT
                       21
NSPEC
        IS C
                   AΤ
                       22
NSPEC
        IS C
                   AΤ
                       23
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT
                      17. 18' 20' 21 23 24 25
DEFAULT ECLEVEL IS. LIMITED :
GRAPH ATTRIBUTES:
RSPEC I
```

NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE

## => s 14

SAMPLE SEARCH INITIATED 23:05:53 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -1165 TO ITERATE

85.8% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: \*\*COMPLETE\*\* ONLINE

\*\*COMPLETE\*\* BATCH

PROJECTED ITERATIONS:

21253 TO 25347

PROJECTED ANSWERS:

0 TO

L5 O SEA SSS SAM L4

## => s 14 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 139.90 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y FULL SEARCH INITIATED 23:06:05 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 22717 TO ITERATE

22717 ITERATIONS 100.0% PROCESSED

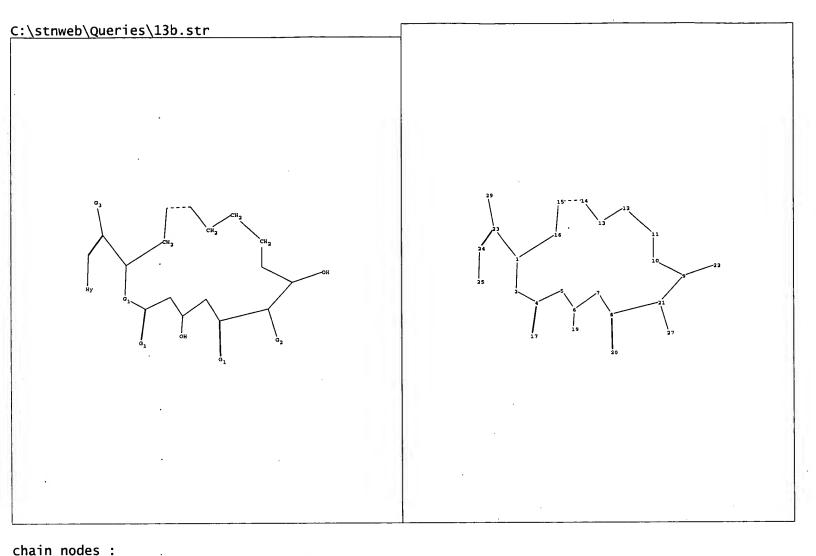
0 ANSWERS

0 ANSWERS

SEARCH TIME: 00.00.01

O SEA SSS FUL L4 L6

=>



```
Chain nodes :
    17    19    20    22    23    24    25    27    29

ring nodes :
    1    2    4    5    6    7    8    9    10    11    12    13    14    15    16    21

chain bonds :
    1-23    4-17    6-19    8-20    9-22    21-27    23-24    23-29    24-25

ring bonds :
    1-2    1-16    2-4    4-5    5-6    6-7    7-8    8-21    9-10    9-21    10-11    11-12    12-13    13-14    14-15

15-16

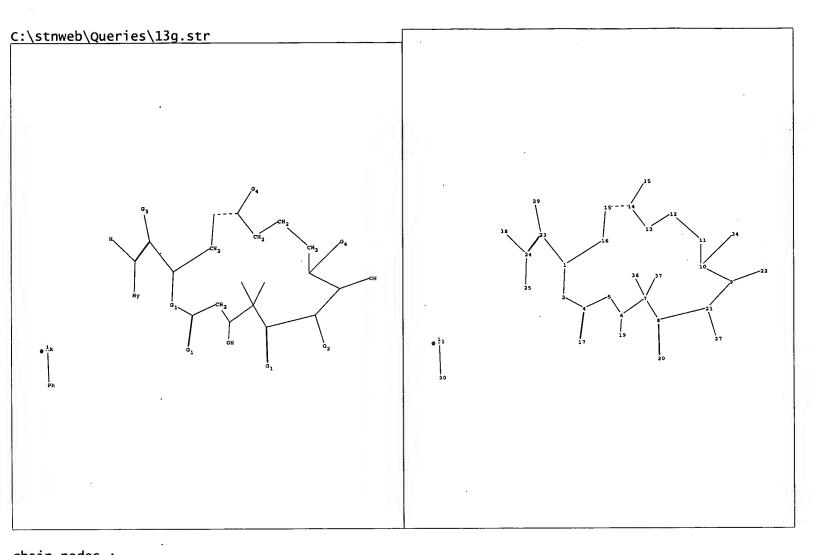
exact/norm bonds :
    1-2    1-16    1-23    2-4    4-5    4-17    5-6    6-7    6-19    7-8    8-20    8-21    9-10    9-21    9-22    10-11
    11-12    12-13    13-14    14-15    15-16    21-27    23-24    23-29    24-25
```

G1:0.S

G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu

G3:H,Ak

Match level:
1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:CLASS 20:Atom 21:Atom 22:CLASS 23:CLASS 24:CLASS 25:Atom 27:CLASS 29:CLASS



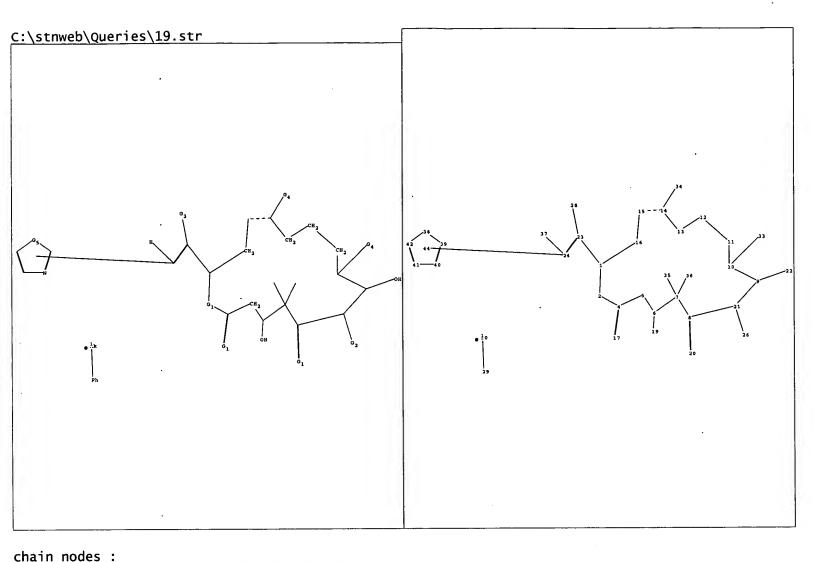
```
chain nodes : 17 19 20 22 23 24
                               25
                                   27
                                        29
                                            30
                                                 31
                                                                   37 38
ring nodes : 1 2 4 5
                               10
                                  11 12
                                            13
                                                14
                                                     15
                                                          16
chain bonds :
                6-19 7-37 7-36 8-20 9-22 10-34 14-35 21-27 23-24 23-29 24-25 24-38
    1-23 4-17
    30-31
ring bonds:
    1-2 1-16 2-4 4-5 5-6 6-7 7-8 8-21 9-10 9-21 10-11 11-12 12-13 13-14 14-15
    15-16
exact/norm bonds :
    1-2 1-16 1-23 2-4 4-5 4-17 5-6 6-7 6-19 7-8 7-37 7-36 8-20 8-21 9-10 9-21 9-22 10-11 10-34 11-12 12-13 13-14 14-15 14-35 15-16 21-27 23-24 23-29 24-25
    24-38 30-31
```

G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu

G3:H.Ak

G4: Ph, Ak, H, [\*1]

Match level:
1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:CLASS 20:Atom 21:Atom 22:CLASS 23:CLASS 24:CLASS 25:Atom 27:CLASS 29:CLASS 30:CLASS 31:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS



```
28
                                         29
                                             30
    17 19 20
                 22 23 24
                               26
                                                  33
ring nodes :
                                                                                 41 42
                                                                21
                                                                    38
                                                                         39
    1 2 4 5
                                   11
                                         12
                                             13
                                                  14
                                                       15
                                                           16
                                10
chain bonds :
                6-19 7-36 7-35 8-20 9-22 10-33 14-34 21-26 23-24 23-28 24-37 29-30
    1-23 4-17
ring bonds :
    1-2 1-16 2-4 4-5 5-6 6-7 7-8 8-21 9-10 9-21 10-11 11-12 12-13 13-14 14-15
    15-16 38-39 38-42 39-40 40-41 41-42
exact/norm bonds :
    1-2 1-16 1-23 2-4 4-5 4-17 5-6 6-7 6-19 7-8 7-36 7-35 8-20 8-21 9-10 9-21 9-22 10-11 10-33 11-12 12-13 13-14 14-15 14-34 15-16 21-26 23-24 23-28 24-37 29-30 38-39 38-42 39-40 40-41 41-42
```

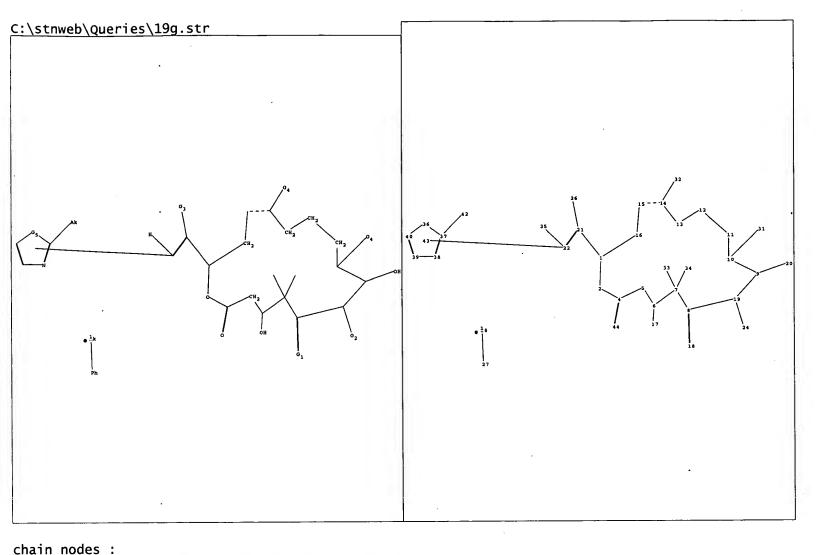
G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu

G3:H,Ak

G4:Ph,Ak,H,[\*1]

G5:0,S

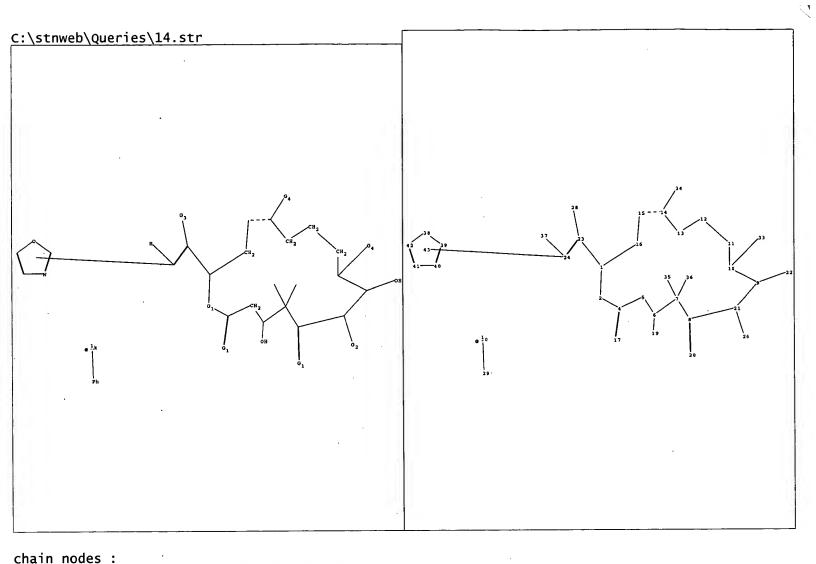
Match level:
1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:CLASS 20:Atom 21:Atom 22:CLASS 23:CLASS 24:CLASS 26:CLASS 28:CLASS 29:CLASS 30:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:Atom 40:Atom 41:Atom 42:Atom 44:CLASS



```
31
                                                                          44
    17 18 20
                 21 22 24
                                26 27
                                         28
                                                  32
ring nodes :
                                                                     '36
                                                                          37
    1 2 4 5
                                         12
                                              13
                                                   14
                                                       15
                                10
                                    11
chain bonds:
                 6-17 7-34 7-33 8-18 9-20 10-31 14-32 19-24 21-22 21-26 22-35 27-28
    1-21 4-44
    37-42
ring bonds:
    1-2 1-16 2-4 4-5 5-6 6-7 7-8 8-19 9-10 9-19 10-11 11-12 12-13 13-14 14-15
    15-16 36-37 36-40 37-38 38-39 39-40
exact/norm bonds :
    1-2 1-16 1-21 2-4 4-5 4-44 5-6 6-7 6-17 7-8 7-34 7-33 8-18 8-19 9-10 9-19 9-20 10-11 10-31 11-12 12-13 13-14 14-15 14-32 15-16 19-24 21-22 21-26 22-35 27-28 36-37 36-40 37-38 37-42 38-39 39-40
```

G1:0,S G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu G3:H,Ak G4:Ph,Ak,H,[\*1] G5:0,S

Match level:
1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:Atom 19:Atom 20:CLASS 21:CLASS 22:CLASS 24:CLASS 26:CLASS 27:CLASS 28:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:Atom 38:Atom 39:Atom 40:Atom 42:CLASS 43:CLASS 44:CLASS



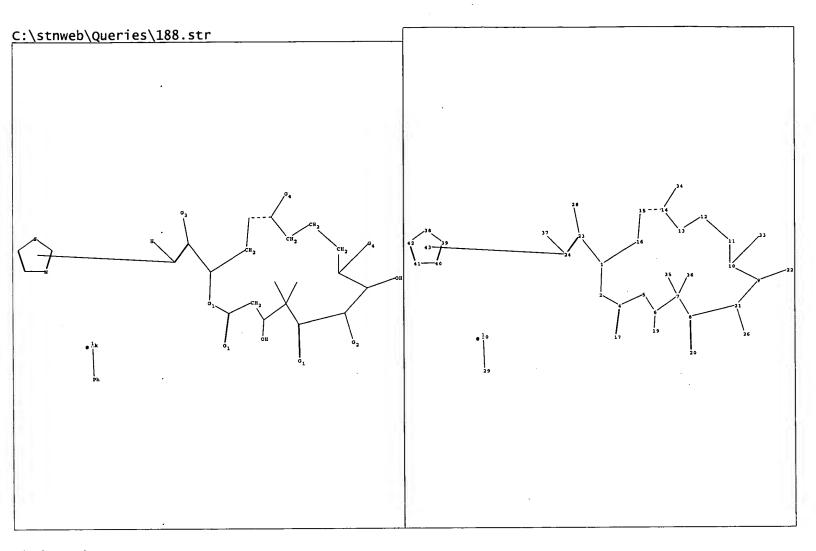
```
28
                                            29
                                                  30
                                                       33
    17 19 20 22 23 24
                                  26
ring nodes:
                                                                      21
                                                                           38
                                                                                39
                                   10
                                       11
                                            12
                                                  13
                                                       14
                                                            15
                                                                 16
    1 2 4 5
chain bonds :
     1-23 4-17 6-19 7-36 7-35 8-20 9-22 10-33 14-34 21-26 23-24 23-28 24-37 29-30
ring bonds :
     1-2 1-16 2-4 4-5 5-6 6-7 7-8 8-21 9-10 9-21 10-11 11-12 12-13 13-14 14-15 15-16 38-39 38-42 39-40 40-41 41-42
exact/norm bonds :
    1-2 1-16 1-23 2-4 4-5 4-17 5-6 6-7 6-19 7-8 7-36 7-35 8-20 8-21 9-10 9-21 9-22 10-11 10-33 11-12 12-13 13-14 14-15 14-34 15-16 21-26 23-24 23-28 24-37 29-30 38-39 38-42 39-40 40-41 41-42
```

G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu

G3:H,Ak

G4: Ph, Ak, H, [\*1]

Match level:
1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:CLASS 20:Atom 21:Atom 22:CLASS 23:CLASS
24:CLASS 26:CLASS 28:CLASS 29:CLASS 30:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS
37:CLASS 38:CLASS 39:Atom 40:Atom 41:Atom 42:Atom 43:CLASS



```
chain nodes :
    17 19 20 22 23 24
                                   26 28 29
                                                  30 33
                                                                  35
ring nodes :
                                                                                 39 40 41 42
    1 2 4 5
                                                  13
                                                       14 15
                                                                  16
                                                                       21
                                                                            38
                   6 7 8
                                   10 11 12
chain bonds :
    1-23 \quad 4-17 \quad 6-19 \quad 7-36 \quad 7-35 \quad 8-20 \quad 9-22 \quad 10-33 \quad 14-34 \quad 21-26 \quad 23-24 \quad 23-28 \quad 24-37 \quad 29-30
ring bonds :
     1-2 1-16 2-4 4-5 5-6 6-7 7-8 8-21
                                                          9-10 9-21 10-11 11-12 12-13 13-14 14-15
     15-16 38-39 38-42 39-40 40-41 41-42
exact/norm bonds :
    1-2 1-16 1-23 2-4 4-5 4-17 5-6 6-7 6-19 7-8 7-36 7-35 8-20 8-21 9-10 9-21 9-22 10-11 10-33 11-12 12-13 13-14 14-15 14-34 15-16 21-26 23-24 23-28 24-37 29-30 38-39 38-42 39-40 40-41 41-42
```

G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu

G3:H,Ak

G4:Ph,Ak,H,[\*1]

Match level:
1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:CLASS 20:Atom 21:Atom 22:CLASS 23:CLASS
24:CLASS 26:CLASS 28:CLASS 29:CLASS 30:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS
37:CLASS 38:CLASS 39:Atom 40:Atom 41:Atom 42:Atom 43:CLASS

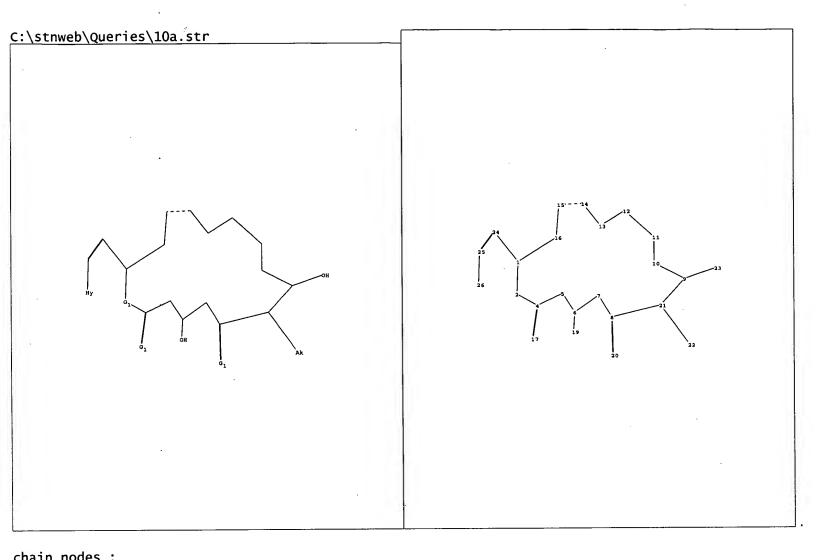
```
C:\stnweb\Queries\14s.str
```

```
chain nodes :
                                     30
   17 18 20
               21 23 25
                            26
                                27
                                         31
                                            32
                                                 33
ring nodes :
                                                                      39
                                                              37
                                                                  38
                                     12
                                         13
                                                 15
                                                         19
   1 2 4 5
                            10
                                11
                                             14
chain bonds :
                                        9-20 10-30 14-31 19-23 21-25 21-43 26-27 34-43
   1-21 4-36 6-17 7-33 7-32 8-18
ring bonds :
    1-2 1-16 2-4 4-5 5-6 6-7 7-8 8-19 9-10 9-19 10-11 11-12 12-13 13-14 14-15
    15-16 37-38 37-42 38-39 39-40 40-41 41-42
exact/norm bonds :
  . 1-2 1-16 2-4 4-5 4-36 5-6 6-7 6-17 7-8 8-18 8-19 9-10 9-19 9-20 10-11 10-30 11-12 12-13 13-14 14-15 14-31 15-16 19-23 21-25 26-27
exact bonds :
   1-21 7-33 7-32 21-43 34-43
normalized bonds : 37-38 37-42 38-39 39-40 40-41 41-42
G1:0,S
G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu
```

G2:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-B G3:H,Ak G4:Ph,Ak,H,[\*1]

G5:0,S

Match level:
1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:Atom 19:Atom 20:CLASS 21:CLASS 23:CLASS 25:CLASS 26:CLASS 27:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 36:CLASS 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:CLASS 43:CLASS 44:CLASS



```
chain nodes :
    17    19    20    22    23    24    25    26
ring nodes :
    1    2    4    5    6    7    8    9    10    11    12    13    14    15    16    21
chain bonds :
    1    2    4    -17    6-19    8-20    9-23    21-22    24-25    25-26
ring bonds :
    1    -2    1-16    2-4    4-5    5-6    6-7    7-8    8-21    9-10    9-21    10-11    11-12    12-13    13-14    14-15
    15-16
exact/norm bonds :
    1    1-2    1-16    1-24    2-4    4-5    4-17    5-6    6-7    6-19    7-8    8-20    8-21    9-10    9-21    9-23    10-11
    11-12    12-13    13-14    14-15    15-16    21-22    24-25    25-26
```

Match level:
1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:CLASS 20:Atom 21:Atom 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:Atom

```
C:\stnweb\queries\163c.str
```

```
chain nodes : 18 19 20 21 22 23
                                  30 31 32
ring nodes :
                                                     13 14 15 16 24 25 26 27
                                                                                                       39 40 41
    1 2 3
42 43
                  5 6 7
                                                                                             28
                                                                                                  38
                                  9 10 11 12
chain bonds :
    1-22 8-35 9-20 10-46 11-19 13-21 15-18 22-23 22-30 23-27 31-32 37-41
ring bonds:
    1-2 1-16 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15 15-16 24-25 24-28 25-26 26-27 27-28 38-39 38-43 39-40 40-41 41-42 42-43
exact/norm bonds :
    1-2 1-16 1-22 2-3 3-4 4-5 5-6 6-7 7-8 8-9 8-35 9-10 9-20 10-11 10-46 11-12 11-19 12-13 13-14 13-21 14-15 15-16 15-18 22-23 22-30 23-27 24-25 24-28 25-26 26-27 27-28 31-32 37-41
normalized bonds :
     38-39 38-43 39-40
                              40-41 41-42 42-43
isolated ring systems:
     containing 24:
```

```
G1:0,S
G2:H,Ak
G3:H,Cb,Ak,[*1]
G4:Ak,[*2]
```

Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 30:CLASS 31:Atom 32:CLASS 35:CLASS 37:CLASS 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom 43:Atom 46:CLASS

```
C:\stnweb\Queries\163a.str
```

```
ring nodes :
    1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 24 25 26 27 28

chain bonds :
    1-22 4-36 8-35 9-20 11-19 13-21 15-18 22-23 22-30 23-27 31-32

ring bonds :
    1-2 1-16 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15
    15-16 24-25 24-28 25-26 26-27 27-28

exact/norm bonds :
    1-2 1-16 1-22 2-3 3-4 4-5 4-36 5-6 6-7 7-8 8-9 8-35 9-10 9-20 10-11 11-12
    11-19 12-13 13-14 13-21 14-15 15-16 15-18 22-23 22-30 23-27 24-25 24-28 25-26

isolated ring systems :
    containing 24 :
```

G2:H,Ak

G3:H,Cb,Ak,[\*1]

chain nodes :

18 19 20 21 22 23 30 31 32 35 36

Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 30:CLASS 31:Atom 32:CLASS 35:CLASS 36:CLASS

```
C:\stnweb\queries\613b.str
```

```
ring nodes :
     1 2 3
42 43
                                                           13 14 15 16 24 25 26
                                                                                                             38 39 40 41
                                                                                                27
                                                                                                       28
                4 5 6 7 8 9 10 11 12
chain bonds :
     1-22 8-35 9-20 10-46 11-19 13-21 15-18 22-23 22-30 23-27 25-47 31-32 37-41
ring bonds :
     1-2 1-16 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15
     15-16 24-25 24-28 25-26 26-27 27-28 38-39 38-43 39-40 40-41 41-42 42-43
exact/norm bonds :
     1-2 1-16 1-22 2-3 3-4 4-5 5-6 6-7 7-8 8-9 8-35 9-10 9-20 10-11 10-46 11-12 11-19 12-13 13-14 13-21 14-15 15-16 15-18 22-23 22-30 23-27 24-25 24-28 25-26 25-47 26-27 27-28 31-32 37-41
normalized bonds:
_38-39 38-43 39-40
                                 40-41 41-42 42-43
isolated ring systems:
     containing 24:
G1:0,S
G2:H,Ak
G3:H,Cb,Ak,[*1]
G4:Ak,[*2]
Match level :
     1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 23:CLASS 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 30:CLASS 31:Atom 32:CLASS 35:CLASS 37:CLASS 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom 43:Atom 46:CLASS
```

37

35

30 31 32

chain nodes :

47:CLASS

18 19 20 21 22 23